

REMARKS:

Claims 36 and 51-59 are pending in the current application. Claim 36 has been allowed. Claims 51-59 have been rejected. Claims 51, 54, 55, and 57 have been amended. Claim 58 has been amended for consistency. Reconsideration is respectfully requested.

Applicants thank the Examiner for allowing Claim 36.

Claims 51-59 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,838,578 to *Pippen*. Applicants respectfully traverse this rejection, noting that *Pippen* does not disclose every element of the amended claims. In particular, the cited reference does not disclose a device outside of the semiconductor circuit configured to compare a temperature indicated by a signal with predetermined values; or that the device outside of the semiconductor circuit issues an event, a logical signal, or a digital signal according to the comparison result.

The *Pippen* reference discloses a microprocessor (Fig. 7, 700; Fig. 9, 900) comprising a programmable thermal sensor (Fig. 7, 100; Fig. 9, 110) and a processing unit (Fig. 7, 705; Fig. 9, 905). (i.e., *Pippen*, col. 10, lines 7-8; col. 12, lines 10-12). The programmable thermal sensor includes a sense amplifier (Fig. 1, 160; Fig. 6) to compare a voltage representing a temperature of the microprocessor. (i.e., col. 9, lines 15-20). Based on this comparison, the programmable thermal sensor may output a signal to the processing unit to adjust the frequency of the microprocessor. (i.e., *Pippen*, col. 10, lines 62-67; col. 11, lines 8-13). Alternately, the signal may be output to an external sensor logic (Fig. 9, 940) to activate a cooling device (Fig. 9, 955) or adjust the frequency of the microprocessor. (i.e., *Pippen*, col. 12, lines 28-39). Thus, *Pippen* discloses a *programmable thermal sensor* that generates a temperature-based voltage, compares the voltage, and outputs a signal based on that comparison.

In contrast, Applicant's claims recite a semiconductor circuit that outputs a signal corresponding to a temperature-varying characteristic, and a device *outside of this circuit* for comparison of temperatures indicated by the output signal. *Pippen*'s comparison of temperatures is done within its thermal sensor, and not outside of it.

In addition, claims 51, 55, and 57 recite that the device provided outside of the circuit or semiconductor circuit issues an event, or a logical signal or a digital signal, according to the comparison result. As described above, *Pippen* discloses outputting a signal using a

programmable thermal sensor that is internal to the microprocessor being monitored. Therefore, *Pippen* does not disclose at least this additional element of the claim.

Claim 54 is a method claim that recites comparing a temperature indicated by a signal, and issuing an event according to the comparison result by a device provided outside of the semiconductor circuit. Thus, *Pippen* does not disclose every element of this claim, for at least the reasons described above in connection with claims 51, 55, and 57.

Therefore, Applicants respectfully submit that claims 51, 54, 55, and 57, and associated dependent claims 52-53, 56, and 58-59, are patentable over the cited reference for at least the abovementioned reasons, and are now in condition for allowance.

CONCLUSION:


For the foregoing reasons, it is respectfully submitted that the claims are in an allowable form, and action to that end is respectfully requested.

The Examiner is invited to call Applicants' attorney at the number below in order to speed prosecution of this application.

The Commissioner is authorized to charge any deficiencies in fees and credit any overpayment of fees to Deposit Account No. 07-1896 and reference Attorney **Docket No. 351991-912332**.

Respectfully submitted,

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